ER-2 #809 08/02/13 - 08/03/13

Aircraft: ER-2 - AFRC #809 (See full schedule)

Flight Number: 13-9049

Payload Configuration: SEAC4RS

Nav Data Collected: Yes Total Flight Time: 6.5 hours

Submitted by: Timothy Moes on 08/05/13

Flight Segments:

| From: | PMD | То: | PMD | | | |
|--------------------|--|---------|------------------|--|--|--|
| Start: | 08/02/13 17:35 Z | Finish: | 08/03/13 00:06 Z | | | |
| Flight Time: | 6.5 hours | | | | | |
| Log Number: | 132301 | PI: | Kent Shiffer | | | |
| Funding Source: | Hal Maring - NASA - SMD - ESD Radiation Science Program | | | | | |
| Purpose of Flight: | Science | | | | | |
| Comments: | Good science check flight. ALIAS-CO in-op, other sensor teams reviewing the results. | | | | | |

Flight Hour Summary:

| | 132301 |
|--------------------------------|--------|
| Flight Hours Approved in SOFRS | 166 |
| Total Used | 164.6 |
| Total Remaining | 1.4 |

| 132301 Flight Reports | | | | | | | | |
|--------------------------------------|---------|-------------------|----------|---------------|-----------------|-------------|--|--|
| Date | Flt # | Purpose of Flight | Duration | Running Total | Hours Remaining | Miles Flown | | |
| 08/01/13 | 13-9048 | Check | 3 | 3 | 163 | | | |
| 08/02/13 - 08/03/13 | 13-9049 | Science | 6.5 | 9.5 | 156.5 | | | |
| <u>08/06/13 -</u> <u>08/07/13</u> | 13-9050 | Science | 8.4 | 17.9 | 148.1 | | | |
| 08/08/13 | 13-9051 | Science | 7.2 | 25.1 | 140.9 | | | |
| 08/12/13 | 13-9052 | Science | 7.9 | 33 | 133 | | | |
| 08/14/13 | 13-9053 | Science | 6 | 39 | 127 | | | |
| 08/16/13 | 13-9054 | Science | 7.8 | 46.8 | 119.2 | | | |
| 08/19/13 | 13-9055 | Science | 8.1 | 54.9 | 111.1 | | | |
| 08/21/13 | 13-9056 | Science | 7.3 | 62.2 | 103.8 | | | |
| 08/23/13 | 13-9057 | Science | 7.7 | 69.9 | 96.1 | | | |
| 08/27/13 | 13-9058 | Science | 7.2 | 77.1 | 88.9 | | | |
| 08/30/13 | 13-9059 | Science | 7.4 | 84.5 | 81.5 | | | |
| 09/02/13 | 13-9060 | Science | 8.2 | 92.7 | 73.3 | | | |
| 09/04/13 | 13-9061 | Science | 8.4 | 101.1 | 64.9 | | | |
| <u>09/06/13 -</u> <u>09/07/13</u> | 13-9062 | Science | 8 | 109.1 | 56.9 | | | |
| <u>09/09/13 -</u> <u>09/10/13</u> | 13-9063 | Science | 8.1 | 117.2 | 48.8 | | | |
| <u>09/11/13 -</u> <u>09/12/13</u> | 13-9064 | Science | 7.6 | 124.8 | 41.2 | | | |
| 09/13/13 | 13-9065 | Science | 8 | 132.8 | 33.2 | | | |
| 09/16/13 | 13-9066 | Science | 8 | 140.8 | 25.2 | | | |
| 09/18/13 | 13-9067 | Science | 7.9 | 148.7 | 17.3 | | | |
| 09/22/13 | 13-9068 | Science | 8.1 | 156.8 | 9.2 | | | |
| 09/23/13 | 13-9069 | Science | 7.8 | 164.6 | 1.4 | | | |

Flight Reports began being entered into this system as of 2012 flights. If there were flights flown under an earlier log number the flight reports are not available online.

Related Science Report:

SEAC4RS - ER-2 #809 08/02/13 Science Report

Mission: SEAC4RS
Mission Summary:

SEAC4RS Test flight #2

Prepared by: Jens Redemann (Jens.Redemann-1@nasa.gov)

<u>Purpose of flight:</u> Test flight, 150km leg at 65kft to underfly Terra at 18:41UT, multiple 150km legs at 65kft en route to Oregon fires and location of rosette pattern near suspected smoke above clouds off the OR coast at NPP overpass time (21:06UT), multiple ascents and descents on the way back for testing in situ instrument performance, plus short 65kft leg above Aspen fire in Sierra Nevada.

Take-off: 10:35 local (Pacific DST) (UTC start = 17:35, UTC end = 00:05 Aug 3)

Duration: 6.5 hrs

Notes: Take-off at 10:35 local (Pacific DST), 1hr to get to alt., successfully coordinated leg with Terra. Multiple good data legs at 65kft en route to Big Windy Fire in OR. Direct 150km leg above Big Windy fire, followed by rosette pattern (some smoke visible in Aug 02 MODIS-Terra image, but no stratus underneath) at NPP overpass time (see Figure 4). Successful ascent/descent maneuvers on the way back. We adjusted flight plan in-flight by eliminating WP 22 to center 65kft leg during return over Aspen fire. Excellent job by mobile pilot (Stu Broce) and ER-2 pilot (Tim Williams) to implement and execute this flight.

Aircraft and instruments: There were frequent drop-out's of the Iridium and INMARSAT links, preventing instrument PI's to monitor the status and health of their instruments. Issue is being worked. All instruments appear to have worked nominally as far as limited in-flight and quick-look analyses showed. No aircraft issues. Aircraft ready to go for science flight on August 6, 2013.

Images:

Test flight 2 Plan



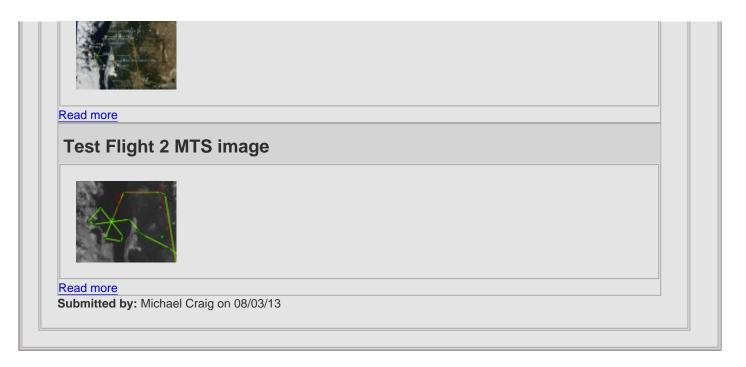
Read more

Test flight 2 profile



Read more

Detailed FP



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